Remarks

This Response and Amendment addresses the Office Action mailed January 16, 2002. Claims 1-14 and 20 are canceled. Claims 1-14 and 20 were the subject of a restriction requirement. Applicant is entitled to file these claims in a divisional application claiming the priority date of the present application. New claims 21-25 are added. No new matter is added by these amendments. Claims 15-19 and 21-25 are now pending.

Claim 15 is amended to correct a typographical error in the preamble. Exemplary support for new claim 21 may be found in Figs. 7 and 8 and at page 8, lines 23-24; for new claim 22 in Figs. 3 and 14 and at page 10, lines 2-22 and page 13, lines 29-30; for new claim 23 in Fig. 4 and at page 6, lines 6-9; for new claim 24 in Figs. 4 and 11 and at page 6, lines 1-4; and for new claim 25 in Fig. 4 and at page 4, lines 22-24. No new matter has been added.

Claims 15-19 have been rejected under 35 U.S.C. §103(a) for obviousness over various references. A rejection under 103(a) must provide a prima facie case of obviousness, which has four parts:

a. There must be some suggestion or motivation to combine the prior art.
b. There must be a reasonable expectation of success of the combination.
c. The prior art references, when combined, must teach or suggest all claim limitations.
d. Both the teaching or suggestion to make the combination and the reasonable expectation of success must be found in the prior art, and not in the applicant's disclosure. MPEP 2142; In re Vaeck, 947 F.2d. 488, 493 (Fed. Cir. 1991).

None of the three rejections in the Office Action meet all four prongs of this test. Therefore, they should be withdrawn. Applicant respectfully traverses each rejection.

Rejections Over Barnes In View of Gallegos

Claims 15-18 were rejected as being unpatentable over U.S. Patent No. 5,674,546 to Barnes et al. ("Barnes") in view of U.S. Patent No. 5,275,277 to Gallegos ("Gallegos"). Claim 15 teaches a decorative container system for displaying items in a hollow region comprising a decorative container with a hollow region between an outer container and an inner container, a removable member allowing access to the hollow region and a decorative lid shaped to be

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removably mounted in an upper opening of the decorative container. The outer container of claim 15 is at least partially transparent. Barnes discloses a package for omelet ingredients that can also be used for cooking the omelet and Gallegos discloses a novelty drinking glass.

The Office Action argues that it would have been obvious to modify Barnes "to include a transparent outer container in order to view the hollow region and to utilize this region as a decorative space in order provide an aesthetically pleasing appearance." However, Barnes teaches away from making this combination because making this change would frustrate one of the goals described in Barnes. The Examiner asserts that the outer container of claim 15 is taught by insulating material 22a of Barnes and that the inner container of claim 15 is taught by lower container 22 of Barnes. The insulating material 22a of Barnes is described as being a corrugated layer of paperboard or foamed plastic that is preferably included to protect the consumer's hand following heating of the package in a microwave oven. (Barnes, Col. 6, lines 5-6 and 8-12 and Col. 3, lines 33-36.) Neither of the insulating materials mentioned in Barnes are transparent. Generally, transparent materials of a given thickness, such as clear plastic or glass, are less insulating than corrugated paperboard or foamed plastic of the same thickness. For example, Pyrex has a thermal conductivity of 0.59 while expanded polystyrene foam has a termal conductivity of 0.021. (See Table 4.4.3, Eugene A. Avallone & Theodore Baumeister III, Marks' Standard Handbook for Mechanical Engineers (CD-ROM edition, 1999), a copy of which is attached.) The statements in Barnes that insulating material 22a is optionally provided for the purpose of insulation teaches away from a modification that would make this component less insulating. The modifications argued by the Examiner would frustrate the goal of providing the insulting layer 22a in Barnes in order to protect the consumer's hand.

The Office Action argues that it would have been obvious to modify Barnes to provide a "removable member in order to allow access to the hollow region in order to change the decoration within the hollow region and to easily clean this region should dirt or other contamination become present." However, this motivation is illogical in view of the fact that Barnes teaches a non-reusable package for a food product. Barnes does not describe the possibility of reusing the container. In fact, Barnes describes a package that is unlikely to be reused. The preferred materials described in Barnes are materials that are unlikely to be reused in a food container, such as paperboard, cardboard and foamed plastic. (Barnes, Col. 6, lines 7-

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24.) The foil sealing the upper container 10 holding the omelet inlay ingredients and the foil sealing the lower container 20 holding the liquid egg are both adhesively secured, so that the foils would be difficult to replace for a second use once they were peeled off. (Barnes, Col. 5, line 55 and Col. 6, lines 34-36.) Therefore, Barnes teaches away from making a modification to allow changes in a decoration in a hollow region because Barnes describes a disposable food container that is unlikely to be reused.

Barnes also teaches away from modifying its package to add a removable member because allowing the introduction of foreign objects in between the lower container 22 and the insulating material 22a could have unknown adverse effects on the microwavability of the package and the insulation provided to the user's hand. Barnes teaches that the package will be used for preparing an egg omelet by microwave heating. (Barnes, Col. 3, line 2.) Inserting "decorations" in between the lower container 22 and the insulating material 22a of Barnes could cause problems depending on the composition of the decorations. Metal decorations could harm the microwave or cause a fire. Also, if the decorations had a lower R value than air, inserting the decorations between the lower container 22 and the insulating material 22a of Barnes would reduce the insulation provided to the user's hand. Therefore, Barnes teaches away from modifying its package to add a removable member.

In addition, Barnes and Gallegos would not be combined by one of ordinary skill in the art because they are from very different technical fields. Barnes relates to a package that can be used for an egg omelet preparation and used by the consumer to cook the egg omelet in the microwave. Gallegos relates to a drinking glass having a transparent circuitous path along its side wall so that the user can see the fluid level within the drinking glass. While Barnes attempts to make omelets a very convenient food to buy and cook, Gallegos is motivating a child to continue drinking as messages are revealed along the path in the glass. Because the purposes and structures of these two patents are so different, one of ordinary skill in the art would not combine teachings from these two references.

For at least these reasons, claim 15 and dependent claims 16-18 are patentable over Barnes and Gallegos.

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Rejections Over Barnes In View of Wilkinson

Claims 15-19 were rejected over Barnes in view of U.S. Patent No. 3,378,134 to Wilkinson et al. ("Wilkinson"), which discloses a compartmentalized fishing tackle container. First, Applicant respectfully submits that the combination of Barnes and Wilkinson does not teach the removable member of claim 15. Second, there is no motivation to combine Barnes and Wilkinson. Third, Barnes teaches away from the combination of Barnes and Wilkinson. Fourth, Barnes and Wilkinson are non-analogous references that would not be combined by one of skill in the art.

The Office Action argues that Barnes teaches the elements of claim 15 except the transparency of the outer container and the removable member. The Office Action goes on to argue that the fishing tackle container of Wilkinson teaches a transparent outer container and a removable member.

First, the fishing tackle container of Wilkinson does not teach a removable member allowing access to a hollow region defined between an inner container and an outer container. The Office Action asserts that circular top wall 23 of Wilkinson teaches the claimed removable member allowing access to a hollow region. Applicants respectfully disagree. The circular top wall 23 is described in Wilkinson as being included in the core member 16. (Wilkinson, Col. 2, line 46-47.) Figure 4 of Wilkinson shows that the circular top wall 23 is fixed to the core 16. If the core 16, including the circular top wall 23, is removed from the fishing tackle container, then there is no "hollow region" defined between an inner and outer container in the remaining shell 2 of Wilkinson. Accordingly, the circular top wall 23 cannot be said to teach a removable member allowing access to a hollow region between an inner and outer container. Hence, the rejection is improper because the combination of Barnes and Wilkinson does not teach a removable access member allowing access to a hollow region defined between an inner and outer container.

Second, there must be a motivation to combine Barnes and Wilkinson found in the prior art, not in the present application. No such motivation can be found within these references: neither Barnes nor Wilkinson contains any suggestion of decorating the omelet package or the fishing tackle container. The Examiner asserts that it would have been obvious to combine the

references for decorative purposes, but does not indicate where this motivation is found in the prior art. A decorative motivation is not found in Barnes or Wilkinson.

Third, as discussed above, Barnes teaches away from the modifications proposed by the Examiner. Barnes teaches away from making its insulating material 22a transparent, since this modification would make the insulating material 22a less insulating, reducing the effectiveness of this component. In addition, Barnes teaches away from adding a removable member to allow changes in a decoration in a hollow region or carry contents in a segregated manner because Barnes describes a disposable food container that will not be reused after it is used for cooking. Also, Barnes teaches away from adding a removable member to allow changes in a decoration in a hollow region because the decorations might interfere with the microwavability of the package or insulation of the user's hand.

Fourth, Barnes and Wilkinson would not be combined by one of ordinary skill in the art because they are from very different technical fields. Barnes relates to a package that can be used for an egg omelet preparation and used by the consumer to cook the egg omelet in the microwave. Wilkinson relates to a compartmentalized fishing lure container. Because the purposes and structures of the devices described in Wilkinson and Barnes are so different, one of ordinary skill in the art would not combine teachings from these two references.

For at least these reasons, claim 15 is patentable over the cited references. Claims 16-19 are dependent on claim 15 and are patentable for at least the same reasons.

Rejections Over Barnes In View of Gallegos and Wilkinson

Claim 19 was also rejected over Barnes in view of Gallegos as applied to claim 15 and in further view of Wilkinson. Claim 19 teaches a decorative container system for displaying items in a hollow region comprising a decorative container with a hollow region, a removable member allowing access to the hollow region, a decorative lid shaped to fit an opening in the decorative container and a plurality of dividers which define a plurality of hollow cavities within the hollow region. The Office Action asserts that the combination of Barnes and Gallegos discloses the present invention except for the dividers. The Office Action goes on to argue that the dividers are taught by Wilkinson, and that it would have been obvious to add the dividers to the alleged

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hollow region of the Barnes/Gallegos combination in order to utilize that hollow region as a storage space to carry contents in a segregated manner.

For the reasons discussed above, Applicant submits that the combination of Barnes and Gallegos does not teach the decorative container of claim 15 which is the base claim for claim 19. As a result, the basis for the rejection of claim 19 is flawed for the reasons discussed above. In addition, all the claimed elements are not taught by the combination of Barnes, Gallegos and Wilkinson because Wilkinson does not teach the claimed dividers. The dividers of Wilkinson are secured to the top wall 23 of the fishing tackle container. The Examiner does not explain precisely how he envisions the dividers being integrated into the alleged Barnes/Gallegos combination. However, it is clear that the dividers of Wilkinson are fixed to the top wall 23, as discussed above. As a result, removing the top wall 23 from Wilkinson results in removal of the core 16, including the dividers, in Wilkinson. Therefore, once the top wall 23 is removed, there is no hollow region defined between an inner container and an outer container. Therefore, Wilkinson does not teach dividers in a hollow region where a removable access member allows access to the hollow region. For at least these reasons, claim 19 is patentable over Barnes, Gallegos and Wilkinson.

Conclusion

In view of the above, favorable reconsideration and Notice of Allowance is requested. The Examiner is invited to telephone the undersigned at (612) 336-4710 if there are any issues that prevent the allowance of this application.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE IN THE CLAIMS

Claims 1-14 and 20 have been cancelled.

Claim 15 has been amended as follows:

15. (Once Amended) A decorative container system for displaying items in [internal cavities] a hollow region comprising:

a decorative container comprising an upper opening and an inner container positioned within an outer container thereby defining a hollow region therebetween, wherein the outer container is at least partially transparent;

a removable member allowing access to the hollow region; and

a decorative lid shaped to be removably mounted in the upper opening of the decorative container, the decorative lid defining a hollow lid cavity and being at least partially transparent, the lid further comprising a removable lid access member providing access to the hollow lid cavity.

Claims 21-25 are new.

Table 4.4.3 Thermal Conductivities of Miscellaneous Solid Substances*
Values of k are to be regarded as rough average values for the temperature range indicated

Material	Bulk density, lb/ft³	Temp, °F	k
Asbestos board, compressed asbestos and cement	123.	86.	0.225
Asbestos millboard	60.5	86.	0.070
Asbestos wool	25.	212.	0.058
Ashes, soft wood	12.5	68.	0.018
Ashes, volcanic	51.	300.	0.123
Carbon black	12.	133.	0.012
Cardboard, corrugated	...	...	0.037
Celluloid	87.3	86.	0.12
Cellulose sponge, du Pont	3.4	82.	0.033
Concrete, sand, and gravel	142.	75.	1.05
Concrete, cinder	97.	75.	0.41
Charcoal, powder	11.5	63.	0.029
Cork, granulated	5.4	23.	0.028
Cotton wool	5.0	100.	0.035
Diamond	151.	70.	320.
Earth plus 42% water	108.	0.	0.62
Fiber, red	80.5	68.	0.27
Flotofoam (U.S. Rubber Co.)	1.6	92.	0.017
Glass, pyrex	139	200.	0.59
Glass, soda lime	...	200.	0.59
Graphite, solid	93.5	122.	87.
Gravel	116.	68.	0.22
Gypsum board	51.	99.	0.062
Ice	57.5	...	1.26
Kaolin wool	10.6	800.	0.059
Leather, sole	62.4	...	0.092
Mica	122.	...	0.25
Pearlite, Arizona, spherical shell of siliceous material	9.1	112.	0.035
Polystyrene, expanded "Styrofoam"	1.7	...	0.021
Pumice, powdered	49.	300.	0.11
Quartz, crystal, perpendicular to C axis	...	−300.	12.5
		0.	4.3
		300.	2.3
Quartz, crystal, parallel to C axis	...	−300.	25.0
		0.	8.3
		300.	4.2
Rubber, hard	74.3	100.	0.092
Rubber, soft, vulcanized	68.6	86.	0.08
Sand, dry	94.8	68.	0.188
Sawdust, dry	13.4	68.	0.042
Silica, fused	...	200.	0.83
Silica gel, powder	32.5	131.	0.049
Soil, dry	...	68.	0.075
Soil, dry, including stones	127.	68.	0.30
Snow	7–31	32.	0.34–1.3
Titanium oxide, finely ground	52.	1000.	0.041
Wool, pure	5.6	86.	0.021
Zirconia grain	113.	600.	0.11
Woods, oven dry, across grain†:			
Aspen	26.	85.	0.069
Bald cypress	24.	85.	0.063
Balsa	10.	85.	0.034
Basswood	24.	85.	0.058
Douglas Fir	29.	85.	0.063
Elm, rock	48.	85.	0.097
Fir, white	26.	85.	0.069
Hemlock	29.	85.	0.066
Larch, western	36.	85.	0.078
Maple, sugar	43.	85.	0.094
Oak, red	42.	85.	0.099
Pine, southern yellow	35.	85.	0.078
Pine, white	25.	85.	0.060
Red cedar, western	21.	85.	0.053
Redwood	25.	85.	0.062
Spruce	21.	85.	0.052

* The thermal conductivity of different materials varies greatly. For metals and alloys k is high, while for certain insulating materials, such as glass wool, cork, and kapok, it is very low. In general, k varies with the temperature, but in the case of metals, the variation is relatively small. With most other substances, k increases with rising temperatures, but in the case of many crystalline materials, the reverse is true.

† With heat flow parallel to the grain, k may be 2 to 3 times that with heat flow perpendicular to the grain, the values for wool are taken chiefly from J. D. MacLean, *Trans. ASHRAE*, 47, 1941, p. 323.

If one of the temperatures remains constant, as in a condenser or in an evaporative cooler, Eq. (4.4.5a) applies for parallel flow, counterflow, reversed current, and cross flow.

If U varies considerably with temperature, the apparatus should be considered to be divided into stages, in each of which the variation of U with temperature or temperature difference is linear. Then for parallel or counterflow operation, the following relation may be applied to each stage:

$$q = \frac{A[U_2(\Delta t)_{01} - U_1(\Delta t)_{02}]}{\ln [U_2(\Delta t)_{01}/U_1(\Delta t)_{02}]} \qquad (4.4.5b)$$

FILM COEFFICIENTS

The important physical properties which affect film coefficients (see Sec. 4.1) are thermal conductivity, viscosity, density, and specific heat. Factors within the control of the designer include fluid velocity and shape and arrangement of the heating surface. With forced flow of gases or water, under the conditions usually met in practice, the flow is turbulent (see Sec. 3) and under these conditions the film coefficient can be greatly increased by increasing the velocity of the fluid at the expense of a greater power requirement. For a given velocity and fluid, the film coefficient depends upon the direction of flow of fluid relative to the heating surface. With free or natural convection, for a given arrangement of surface, the film coefficient depends on an additional fluid property, the coefficient of thermal expansion, on the temperature difference between surface and fluid, and on the local gravitational acceleration. With forced convection at low rates of flow, particularly with viscous fluids such as oils, laminar motion may prevail and the film coefficient depends on thermal conductivity, specific heat, mass rate of flow per tube, and length and diameter of the tube. In any event, the film coefficients h are correlated in terms of dimensionless groups of the controlling factors.

Turbulent Flow inside Clean Tubes (No Change in Phase), $DG/\mu_f > 7{,}000$

$$\frac{h_m}{C_p G}\left(\frac{C_p \mu_f}{k_f}\right)^{2/3} = \frac{0.023}{(DG/\mu_f)^{0.2}} \qquad (4.4.6a)$$